

Translational Research Working Group

Cancer Center Directors' Retreat

November 6-7, 2005

Dallas, Texas

Ernest Hawk, MD, MPH
Office of Centers, Training & Resources
DHHS, NIH, NCI, Office of the Director

Medicine's Emerging Transformation

Transition will be fueled by translational science

20th Century	21st Century	Implications
Treat disease when symptoms appear & normal function is lost	Intervene before symptoms appear & preserve normal function for as long as possible	Prevention of disease & health preservation
Cross-sectional, morphologic definition/ understanding of disease	Dynamic, cellular/molecular understanding of disease processes	Prediction of risk earlier and better; more effective, less toxic interventions
Expensive in financial & disability costs	Improved opportunities for effectiveness & efficiency	Personalization; greater responsibility to realize the promise

Adapted from A von Eschenbach & E Zerhouni, 2005

Evolutionary Forces at Play

“Suppressors”

- **Behavioral inertia**
 - Diet
 - Exercise
 - Chemical abuse
 - Tobacco
 - Alcohol
 - Drugs
- **Aging**
- **Resource limitations**
 - Time
 - Money
 - Personnel
- **Disorganization**
- **Narrow focus**

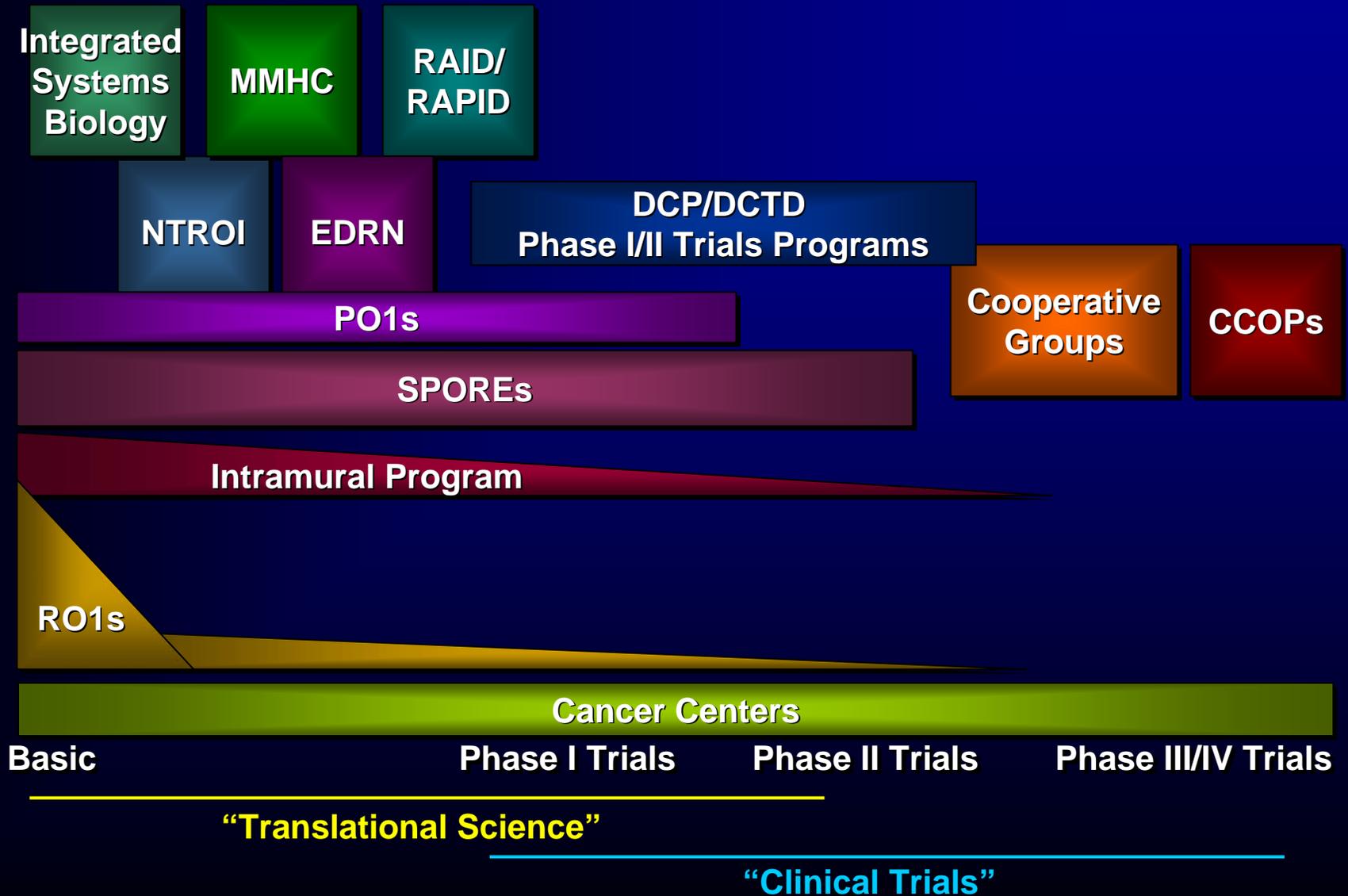
“Activators”

- **Molecular insights**
 - “omics”
 - Progressively earlier diagnosis
 - Targeted therapies
 - Biotherapies (e.g., vaccines)
 - Shared aberrancies underlying diverse diseases of aging
- **Advances in imaging**
 - Virtual, serial exams
 - Molecular pathophysiology
- **Communication**
 - E-records
 - Standardized tools (e.g., ca-BIG)
- **Promise of personalization**

The Rationale for the TRWG

- Advances in cancer biology offer enormous opportunities to improve public education and clinical practice
- Proliferation of NCI programs over the last decade
- Limited resources, unlimited potential, high expectations
- Important opportunities to accelerate our progress

Components of NCI's "Bench to Bedside & Back" Research Infrastructure



Translational Research Working Group

- National initiative to evaluate the current status of NCI's investment in translational research and envision its future in an inclusive, representative, and transparent manner
- Anticipated Steps
 1. Acknowledge prior/concurrent efforts
 - CTWG
 - P30/50 Working Group
 - PRG reports
 - President's Cancer Panel
 - NIH Roadmap initiatives
 - NCAB report (*Cancer at a Crossroads*)
 2. Define scope of activity
 3. Evaluate existing programs
 4. Provide vision & recommendations
 - Near-term adjustments of existing programs
 - Long-term vision transcending existing programs
 5. Develop implementation strategy

TRWG Leadership

- **Lynn Matrisian, PhD**

- Vanderbilt University
 - Ingram Distinguished Professor & Chair of Cancer Biology
 - Associate Professor of Obstetrics & Gynecology
- American Association for Cancer Research
 - Past President
- NCI Board of Scientific Advisors
 - Member
- Research – molecular carcinogenesis; matrix metalloproteinases and cancer
- Since 2000, funded through R01, P50 (SPORE), R21, T32

- **William G. Nelson, MD, PhD**

- Johns Hopkins University
 - Professor of Oncology, Urology, Pharmacology, Medicine, & Pathology
 - Joint Appointment in Environmental Health Sciences, Bloomberg School of Public Health
- Research focus – prostate cancer; cancer prevention & control; therapeutics
- Since 2000, funded through R01, P50 (SPORE), R13

TRWG Strategic Plan

- **Announce TRWG plan to NCAB**
 - Interact with a variety of interested groups
- **Define senior leadership**
- **Develop membership rosters**
 - TRWG & Roundtable invitees
 - 9 Center Director invited; 7 involved
- **Share foundational documents**
- **Develop web-based communication platform**
- **Initiate translational research outcomes evaluation**

- **Plan 1st Roundtable and receive public comment on the following topics:**
 - What will an optimal translational research program look like in 2015?
 - Elements, focus, leveraging, progress metrics, etc.
 - How can NCI best facilitate that future?

TRWG Strategic Plan

- Convene 1st Roundtable
- TRWG - Develop draft model & recommendations based on the 1st Roundtable
- Publicize draft model & recommendations
- Receive public comment
- Convene 2nd Roundtable
 - Discuss draft model, recommendations, and evaluation results
 - Solicit ideas regarding implementation
- TRWG – Develop an implementation plan
- Present final model, recommendations, & implementation plan to NCAB

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- **Johns Hopkins University**
 - Bill Nelson, MD, PhD